



**NOTICE OF A REGULAR MEETING
OF THE DESIGN REVIEW BOARD OF THE TOWN OF CLARKDALE**

**Wednesday, April 4, 2018 6:30 pm
Men's Lounge, Clark Memorial Clubhouse, 19 N. Ninth Street**

In accordance with Resolution #215 of the Town of Clarkdale, and Section 38-431.02, Arizona Revised Statutes, **NOTICE IS HEREBY GIVEN** that the Design Review Board of the Town of Clarkdale will hold a **REGULAR Meeting Wednesday, April 4, 2018 at 6:30 p.m., in the Men's Lounge, Clark Memorial Clubhouse, 19 N. Ninth Street, Clarkdale, Arizona.**

All members of the public are invited to attend.

GUIDELINES FOR PUBLIC COMMENT

The Town of Clarkdale endorses civil discourse. If you wish to speak at this meeting, please:

- Fill out a "Comment Card" and deliver to a staff person.
- When recognized, step to the podium and state your name and whether you are a Clarkdale resident.
- Direct all comments to the Board Chair. Do not enter into a dialogue with the applicant or other members of the public.

The undersigned hereby certifies that a copy of this notice was duly posted on the Town Hall bulletin board, located at 890 Main Street, Clarkdale, Arizona on **March 26th, 2018 at 4:00 p.m.**

Mike Gray
Project Manager

www.clarkdale.az.gov

1. CALL TO ORDER

2. ROLL CALL

3. PUBLIC COMMENT: The public is invited to provide comments at this time on items that are not on this agenda. Action taken as a result of public comment will be limited to directing staff to study the matter, or scheduling the matter for further consideration and decision on a later agenda, as required by the Arizona Open Meeting Law. Each speaker is asked to limit comments to **FIVE MINUTES.**

4. MINUTES:

- a. Consideration of the Regular Meeting Minutes of March 7, 2018.

5. REPORTS:

- a. Chairperson and Members Report

6. NEW BUSINESS:

- a. DISCUSSION/POSSIBLE ACTION regarding changing the regular meeting time of the Design Review Board.
- b. WORKSESSION: DISCUSSION/POSSIBLE ACTION regarding sustainable development guidelines for multi-family development.
- c. WORKSESSION: DISCUSSION/POSSIBLE ACTION regarding Art In Public Places
- d. WORKSESSION: DISCUSSION/POSSIBLE ACTION regarding preparation for the May 8th joint worksession with Town Council

7. FUTURE AGENDA ITEMS

8. ADJOURNMENT

MINUTES OF A REGULAR MEETING OF THE DESIGN REVIEW BOARD OF THE TOWN OF CLARKDALE HELD ON WEDNESDAY, MARCH 7, 2018, AT 6:30 P.M. IN THE MEN'S LOUNGE OF THE CLARK MEMORIAL CLUBHOUSE, 19 N. NINTH STREET, CLARKDALE, AZ.

A **Regular Meeting** of the Design Review Board of the Town of Clarkdale was held on Wednesday, March 7, 2018, at 6:30 p.m. in the Men's Lounge of the Clark Memorial Clubhouse, 19 N. Ninth Street, Clarkdale, AZ.

BOARD MEMBERS:

Chairperson	Laura Jones	Present
Vice Chairperson	Aaron Midkiff	Absent
Board Members	Mike Garvey	Present
	Robyn Prud'homme-Bauer	Present
	Bill Snyder	Present

STAFF:

Project Manager	Mike Gray
Senior Planner	Beth Escobar

OTHERS IN ATTENDANCE:

Ida & Peter de Blanc
Guss Espolt

- AGENDA ITEM: CALL TO ORDER:** The Chairperson called the meeting to order at 6:29 p.m.
- AGENDA ITEM: ROLL CALL:** Senior Planner Escobar called roll.
- AGENDA ITEM: PUBLIC COMMENT:** The public is invited to provide comments at this time on items that are not on this agenda. Action taken as a result of public comment will be limited to directing staff to study the matter, or scheduling the matter for further consideration and decision on a later agenda, as required by the Arizona Open Meeting Law. Each speaker is asked to limit comments to **FIVE minutes.**

No public comment.

- AGENDA ITEM: MINUTES:** Consideration of the **Regular Meeting Minutes of December 6, 2017.** Board Member Garvey motioned to approve the **Regular Meeting Minutes of December 6, 2017.** Board Member Prud'homme-Bauer seconded the motion. **The motion passed unanimously.**
- AGENDA ITEM: REPORTS:**

Chairperson and Member Report:

Chair Jones informed the Board the Verde River Runoff in Camp Verde is scheduled for March 17, 2018. The event includes races and fun runs and proceeds benefit the Friends of the Verde River.

Board Member Prud'homme-Bauer informed the Board that the 8th annual Clarkdale Car Show & Chili Cook Off is this Saturday, March 10th. Over 100 vehicle registrations have already been received.

Staff Report: No report.

6. AGENDA ITEM: NEW BUSINESS:

- a. **DISCUSSION/POSSIBLE ACTION** regarding changing the regular meeting time of the Design Review Board
Board member Snyder proposed changing the meeting time to earlier in the day. He suggested maybe mid-morning or early afternoon. Board Member Garvey stated his days are busy, but he could consider 3:30 or 4:00. Board Member Prud'homme-Bauer stated her days are also busy, but could do 5:00.

The Board agreed no decision should be made without Board Member Midkiff's input and directed staff to send out a doodle poll regarding alternate meeting times.

- b. **DISCUSSION/POSSIBLE ACTION** regarding a sign application for El Toreo Mexican Restaurant DRB-091793 - alteration to the existing monument canister.

Planning Manager Escobar presented Project Manager Gray's staff report:

Background:

Mr. Miguel Santana has submitted an application to Design Review for a monument sign alteration at the former Nate's Cowboy Restaurant, Parcel # 406-26-344A, 1481 SR 89A.

The application before the Board is for proposed monument sign inserts to be used with the existing previously approved monument.

The proposed sign alteration will be double sided 4' x 8' black opaque vinyl covered Plexiglas with internal lighting.

The lettering style has been illustrated (see attachment) but the font name has not been identified. It should be noted that the aesthetic of this sign is consistent with the applicant's existing signage at a location in a neighboring community.

Staff Analysis

Pertinent Design Guidelines

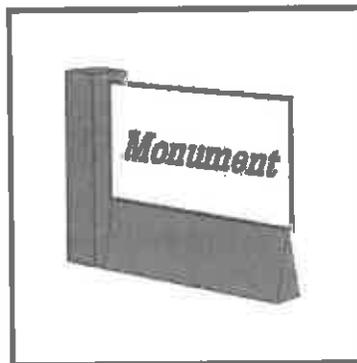
1. ***No more than three different fonts should be used in the text for the sign.*** The proposed sign has only one font and does not exceed the suggested font count.
2. ***Sign should have no more than 50 percent opacity. Dark background colors are preferred.*** The El Toreo Restaurant sign complies with the criteria.

- 3 **Signs should be non-reflective.** The proposed sign has no reflectivity.
- 4 **Signs should be readable from the closest major road.** The readability of the El Toreo Restaurant sign complies with the new criteria.

Pertinent Code

The El Toreo Restaurant monument sign complies with the **Zoning Code Chapter 7 Section 7-8 Permitted Signs. Freestanding Monument Signs:**

- 1. Permitted in commercial and multi-family zoning districts and for residential subdivisions.
- 2. Minimum setback from property line foot for each foot of height of the sign 6 feet or less in height; for signs in 6 feet in height the setback shall be than or equal to the height of the sign.
- 3. Low-water use, drought-tolerant plants Town of Clarkdale Plant List, Section 9- Zoning Code, or landscape rocks may around the sign base to minimize the impact of a monument sign and create a attractive appearance.
- 4. One monument sign is allowed for each road intersection providing access to the property.
- 5. See Section 7-9 of this Code for maximum signage square footage.
- 6. Base of sign must be in proportion to sign size area.
- 7. Maximum height of sign and base shall not exceed 10 feet above existing grade at time of construction.



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And Zoning Code chapter 7 S. 89A Overlay District. 89A Overlay District

- 1. Signage shall be minimal and shall consist of either wall signs or monument signs. Wall signs shall not exceed eight feet in height and monument signs shall be no greater than four feet in height.

Zoning Code chapter 8 Outdoor Lighting Code Section 8-7 P. Lighting Requirements: The proposed sign lighting complies with this code.

P. Outdoor internally illuminated advertising signs shall either be constructed with an opaque background and translucent letters and symbols or with a colored (not white, cream, off-white,

yellow or other light color) translucent background, with either translucent or opaque letters and symbols. Opaque means only that the material must not transmit light from the internal illuminations source: the color of such opaque backgrounds is not restricted by this section. Lamps used for internal illumination of such signs shall not be included in the lumens per net acre limit set in Section 8-7J. All illuminated signs shall be turned off at 10:00 p.m. or at the close of business, whichever is later.

Possible Actions

The Design Review Board may approve the signage submitted, conditionally approve the signage with stipulations, direct staff to provide additional information and table the application until a date certain or disapprove the application as filed.

Staff Recommendations

Having met all code requirements, staff recommends the signage be approved with the following stipulations:

1. Sign will be constructed as approved and permitted.
2. Internal sign illumination shall be turned off by 10:00 p.m. or close of business every evening whichever is first.
3. Applicant shall receive a Town of Clarkdale Business License prior to sign installation.
4. Staff recommends that steps be taken to beautify the masonry base of the existing monument sign in question. One possibility might be the addition of native plants, cactus or shrubbery and refinishing and repainting the base.
5. Staff recommends removal of the faded window beer advertisements. The existing window decal advertisement signage appears to be non-compliant with *Zoning Code Section 7-8*:
No more than fifty percent of the window shall be used for signage.
6. Staff recommends removal of the existing flood lamps mounted to the building. These are not compliant with *Zoning Code Section 8-7*:

A. Outdoor floodlighting by floodlight projections above the horizontal is prohibited except for lamps specifically exempted under Section 8-7 K and R and properly adjusted motion sensing security lighting fixtures as defined in Section 8-13 A14.

and

C. All light fixtures, including security lighting, except street lamps, shall be aimed or shielded so that the direct illumination shall be confined to the property boundaries of the source. Particular care is to be taken to assure that the direct illuminations do not fall onto or across any public or private street or road. Motion sensing lighting fixtures shall be properly adjusted, according to the manufacturer's instructions, to turn off when detected motion ceases.

Because the building on this site has been unoccupied for over one year, any legal, non-conforming allowance has been vacated.

Board Discussion:

- The Board suggested the bottom of the monument sign be painted beige or a light gray.
- Mr. Santana inquired about doing a mural. Staff stated murals were not considered signage and do not require Board approval
- The Board did not support additional plantings at the base of the existing monument sign.

BOARD ACTION: Board Member Prud'homme Bauer moved to approve the sign as presented with the conditions suggested by staff. Board Member Snyder seconded the motion. The motion based unanimously.

- c. **WORKSESSION: DISCUSSION/POSSIBLE ACTION** regarding permeable surfaces as an alternative to asphalt pavement and concrete.

Project Manager Gray summarized his staff report and provided a PowerPoint presentation:

Background: The following was presented to the Planning Commission on February 20, 2018. The information was well received and the Commission directed staff to present it to the Design Review Board.

In keeping with Clarkdale's Vision for Sustainability, the Planning Commission has asked Community Development to explore options for permeable surfaces as an alternative to asphalt and concrete paving. Impermeable surfaces (asphalt and concrete paving) come with some undesirable effects:

- They tend to concentrate high volumes of fast-moving water during heavy runoff events.
- The use of concrete and asphalt decreases soil infiltration area, preventing subsurface water absorption in the immediate area and transporting the water elsewhere.
- If not dealt with effectively, the runoff can contribute to standing water and a resulting mosquito breeding environment.
- It increases erosion at the margins of the impermeable surface.
- When cracks form in asphalt and concrete, water intrusion necessitates expensive repairs.
- Another problem, unrelated to runoff, is that larger expanses of impermeable surfaces in hot climates cause what is known as "urban heat island effect". (Fig.1)

Why the urban heat island effect occurs

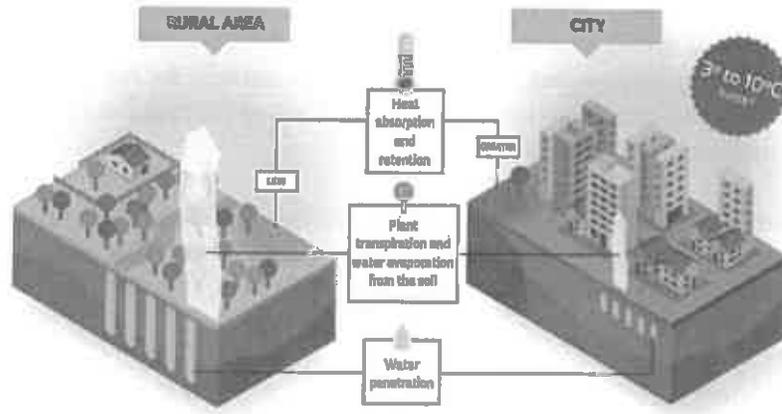


Fig. 1

Permeable surfaces, on the other hand:

- Are better at preventing fast, concentrated flows than impervious surfaces. While runoff coefficient varies widely between materials, their impact on storm runoff is almost always an improvement over impermeable surfaces. One foreseeable exception would be a situation in which sub-surface hard pan rock might direct infiltrated water toward a structure that could be adversely affected.
- Allow infiltration of precipitation into the soil. This minimizes evaporation loss and improves the rate of aquifer recharge.
- Decrease standing water and associated mosquito breeding habitat.
- Are undamaged by water incursion since they are designed to allow infiltration.
- Are less dense, and reduce the effects of “urban heat island” phenomenon. (Fig. 1)

Products:

Staff had some prior exposure to porous and permeable surfaces and also searched for other options online. The research yielded a multitude of block paver type solutions. Block pavers themselves are essentially impervious but depending on how they are installed, can allow water/and or vegetation between the blocks. In a case where the pavers allow grass to grow between the blocks, the roots are not protected, so the vegetation tends to die with any amount of traffic.

Staff felt it appropriate to examine the more porous approaches, and found three products that have been in use in Arizona; a decomposed granite stabilizer and two porous, open cell products, one of which (Envirogrid) had failed within a few years of installation.

The two remaining options were Stabilizer Solutions - stabilized, decomposed granite (SDG) and Invisible Structures GravelPave2. Both products are applied over road base. Of these two products, Colorado based Invisible Structures GravelPave2 has a lifespan of 25 years - similar to or exceeding asphalt and concrete, while Arizona based Stabilizer Solutions’ SDG product requires periodic reapplication of the material. Both products comply with ADA requirements, are able to support heavy

truck traffic (for instance, a fire department ladder truck with outriggers extended) and have demonstrated long-term durability with slow moving (ie: parking lot) traffic.

Vendors for both products were contacted. A representative for GravelPave2 visited Community Development and provided samples and specifications for a variety of related products. Staff spoke on the phone with Stabilizer Solutions representative. Both representatives are researching questions specific to their respective products including maximum grade, natural and recycled material content, and general clarification of information.

In the meantime, staff has assembled a rough cost comparison of a hypothetical 100' x 100' parking lot, assuming level surface with design & engineering complete and with 6" of compacted AB already in place. Following is preliminary material and freight cost information (not including labor) provided by representatives for each product:

1. Stabilizer Solutions (SDG): Recommended 6" SDG at \$38.00/ton, plus per-truckload transportation from Phoenix (25 tons per truck). At a compacted 6" depth, a ton yields about 32.5 square feet (sf). The above hypothetical parking lot would require about 308 tons of the SDG material. This amount would require 13 truckloads. As of Feb. 15, staff is awaiting a per truckload quote for freight. Labor would have to be bid out.
2. The Gravelpave2 representative quoted approximately \$3.50/sf for the rolled material. At 10,000 sf, the cost for rolled product would be \$35,000 plus aggregate material at a depth of 1.25" to complete the surface. This lot would need 297 cubic yards for about \$700. Again, labor would have to be bid out.
3. Town of Clarkdale Public Works Superintendent estimated the same parking lot with 3" of asphalt at approximately \$24,522 plus mobilization, which could approach an additional \$15,000. This price would include labor.

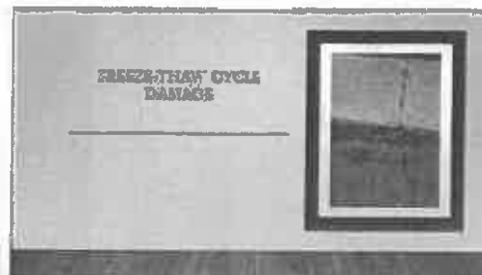
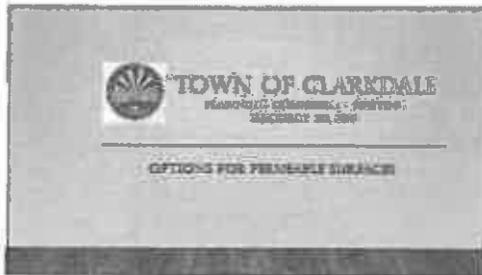
Depending on what direction this discussion takes, code changes may be recommended to encourage the use of permeable surfaces as an alternative to asphalt and concrete. The Planning Commission will be discussing this possibility with Town Council at their joint worksession in May.

Review:

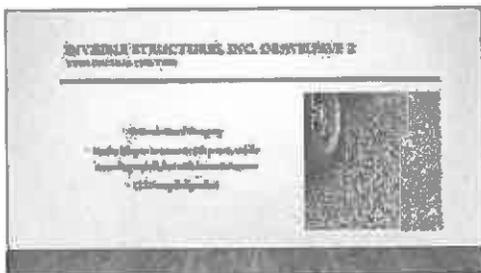
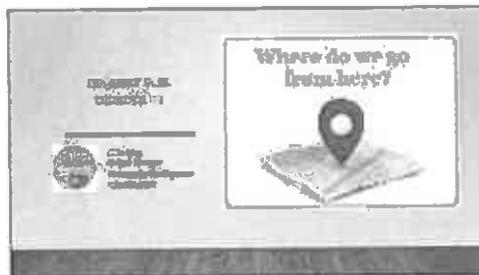
Staff has had some general discussions with the Public Works Director regarding these products. Further review by the Police Department, Yavapai County Flood Control District and Verde Valley Fire District would be recommended.

Recommendation: This is a discussion item only. Staff is asking the Design Review Board to review the materials and provide feedback on the information presented.

03/08/2018



03/08/2018



Board Discussion:

- Board Member Garvey asked Project Manager Gray if he was familiar with Rolled-compacted concrete, a Portland Cement product. Mr. Gray stated no, but thank Mr. Garvey for the reference, he will research the topic. He would be especially interested in the run-off co-efficient.
 - Board Member Prud'homme-Bauer suggested staff reach out to Salt River Materials Group, a local company, to see if they have any similar products.
 - Board Member Prud'homme-Bauer stated the concept is a good fit for our small town which focuses on sustainable decisions and things that make sense. Cost effectiveness of these products needs to be a consideration.
 - Chair Jones asked what the Rain Spirit RV Resort was using. Planning Manager Escobar stated the RV pads will be asphalt, but the travel lanes will be decomposed granite.
 - Chair Jones suggested future uses of permeable surface products could include parks and subdivisions.
 - The Board agreed they support the use of these types of products and we should identify a test project for these types of permeable surfaces.
- d. **WORKSESSION: DISCUSSION/POSSIBLE ACTION** regarding an introduction to proposed development guidelines for Multi-Family Housing development

Project Manager Gray summarized the staff report and PowerPoint presentation

Background:

Community Development staff met with three separate property owners in late 2017 who are considering developing multi-family residential projects in Clarkdale. To this end, Community Development was directed by the Design Review Board, at their December 6th meeting, to research and deliver information on sustainable approaches to multi-family housing.

Sustainable development recognizes the needs of the present without compromising future generations, per the Town of Clarkdale Adopted Vision, Mission and Guiding Principles.

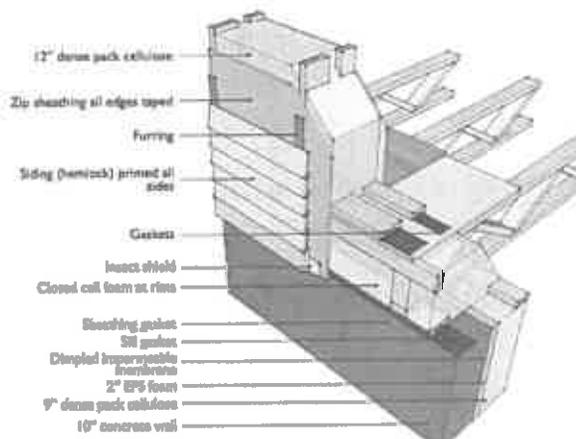
Clarkdale is already leading the way on the path to a more sustainable built-environment with C&B Construction's highly-efficient Energy Star homes and the introduction of Mandalay Homes' Net-Zero ready homes.

While the first question about any new building is almost invariably "how much does it cost per square foot?", people are beginning to accept the fact that although building more efficiently generally costs more money up-front, the payoff comes in the form of improved comfort and the use of less energy and a reduction in the long-term cost of ownership. Addressing the challenge of building highly efficient homes is a big step in the right direction. Organizations like BPI (Building Performance Institute), LEED (Leadership in Energy and Environmental Design) Energy Star, PassivHaus etc. have paved the way in helping consumers to understand the benefits of constructing a better building.



2 part spray foam

Blower Door Testing



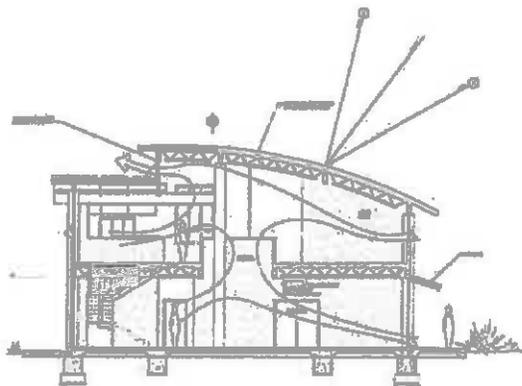
PassivHaus Standard



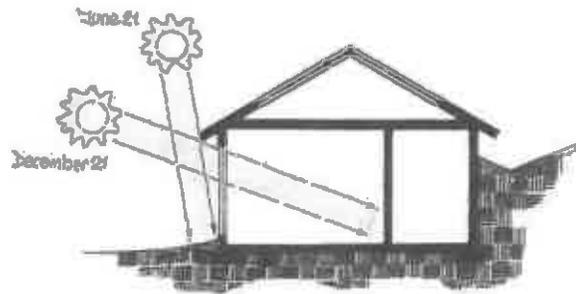
Thermography

However, building to higher efficiency standards typically involves significantly more materials and expensive certifications. Performance of these high efficiency systems may depend on expensive technology, complicated mechanical systems and undesirable substances instead of taking advantage of natural resources like seasonal weather patterns, sunshine and shade.

Considering the Town of Clarkdale's commitment to sustainability in combination with the regional need for affordable housing, staff believes it is worth discussing a different approach to sustainable multi-family housing.



Natural Ventilation



Seasonal Solar Arc - Passive Solar



High Mass, Net-Plus Home in Prescott, AZ – Living Systems Sustainable Architecture

For the Design Review Board’s consideration, please find the Town’s Sustainability Values.

As stewards of our resources, we serve as role models for others and keepers of the land for future generations. The people of the Town of Clarkdale are committed to creating and maintaining a healthy, vibrant and sustainable community.

This document provides guiding principles for development in the Town. Great value is placed on creative and innovative methods for meeting the principles of these guidelines.

Siting – Take advantage of the natural resources and consider the impact of building placement.

1. *Orientation – for example, in the Southwest, a north/south orientation & overhangs providing shade are desirable*
2. *Topography – keep ridgelines intact & minimize grading*
3. *Wildlife – encourage preservation of the natural habitat*
4. *Plant life – preserve/transplant native, non-invasive species & remove invasive species.*
5. *Open spaces – clustering development in order to preserve open space is a valued practice*
6. *View protection – expansive landscape views are a valued benefit in the community; therefore preservation & enhancement is encouraged*

Water Management – Recognize that water is an extremely limited resource; efficient and effective management of that resource is critical.

1. *Use catchment basins*
2. *Include a graywater system*
3. *Install a rainwater harvesting system*
4. *Storm water management – (see National Green Building Standard, page 16, 403.5)*
5. *Washes – while dry much of the year, the washes are the primary drainage for stormwater runoff and there may be rules and impacts to be considered before making any changes. Development must comply with state and federal requirements.*
6. *Swimming pools – Community use pools are preferred over individual private pools.*

Infrastructure – Design project infrastructure to have minimal impact on the environment.

1. *Connecting to existing Systems – trails, bikeways, sidewalks, consider wildlife paths & crossings*
2. *Utilities – we encourage connecting to the town municipal water & wastewater system, encourage installation of power lines underground*
3. *Parking – we encourage screened and covered parking*
4. *Road Connection – we value interconnectivity between subdivisions and multiple points of ingress and egress for neighborhoods*
5. *Street Layout. (Design of street must comply with adopted standards.)*

Green building – Incorporate current technologies to support sustainable design.

The design character of any area of The Town of Clarkdale should be enhanced and strengthened by new development. Building design should be consistent with the Town of Clarkdale's vision of maintaining small town character as expressed in its architecture and overall community design. Building design should consider the history, the distinctive qualities of the surrounding context, and incorporate those qualities in its design. Building design should be sensitive to the evolving context of the area over time.

1. *Energy*
2. *Alternative methods of transportation including foot traffic*
3. *Driveways & parking*
4. *Air quality*
5. *Innovative practices*

Design Principles – Plan projects to fit into existing infrastructure and have minimal impact.

1. *Ensure adequate traffic circulation through coordinated street systems with relation to major thoroughfares, adjoining subdivisions, adjacent commercial properties and public facilities;*
2. *Promote development that incorporates multimodal transportation options;*
3. *Protect significant, as determined by the Town, natural areas and scenic assets;*
4. *Achieve individual property lots of reasonable utility and livability;*
5. *Secure adequate provisions for water supply, drainage, sanitary sewers, and other health/environmental requirements;*
6. *Encourage projects that incorporate efficient uses of renewable energy sources, including but not limited to, solar, geothermal and wind;*
7. *Ensure consideration for adequate sites for schools, recreation areas, and other public facilities;*
8. *Promote the conveyance of land by accurate legal description; and to provide the logical procedures for the achievement of this purpose;*
9. *Minimize detrimental impacts to the environment by encouraging site designs that protect and enhance the natural features and environmental quality of a site;*
10. *Encourage landscaping that limits water and energy use and preserves existing natural vegetation;*
11. *Encourage the preservation of existing wildlife habitat; and*
12. *Encourage the substitution of effluent for potable water when possible.*

Construction: Incorporate the following best practices

1. *Energy efficiency*
2. *Indoor environmental quality*
3. *Resource efficiency – quality of construction materials*
4. *Waste minimization – focuses on preventing the creation of waste through source reduction, re-purposing, recycling and donation.*
5. *Vegetation removed during construction should be mulched and returned to the site.*
6. *Consider a passive solar energy design*
7. *Encourage the use of energy and water efficient appliances and kitchen/bathroom fixtures.*

Maintenance & Restoration – Minimize environmental impact

1. *Design & construction practices are implemented that enhance the durability of materials and reduce in-service maintenance.*
2. *Upgrade all systems when possible to meet the highest possible energy efficient standards.*

Landscape Standards – Develop a landscape plan that conserves resources by incorporating the following:

1. *Use of site design that retains and directs rainwater to landscape areas.*
2. *Retention, to the greatest extent practical, of existing natural trees and shrubs on the site.*
3. *Transplanting of existing native vegetation that cannot be retained into new landscape area.*
4. *Use of an effective irrigation system that senses soil moisture.*
5. *Design of irrigation system that avoids overspray and overflow.*
6. *Include a target shut-off date for the irrigation system.*

Additionally, staff is aware of a regional concern with regard to diverse housing stock including smaller homes. Workers have little incentive to remain in a region in which they cannot afford to live. Staff believes aligning dwellings to these simple, earth-friendly criteria may provide a broader path to home-ownership and economic security. Staff therefore recommends consideration of this additional guideline for some portion of multi-family development.

Small and Simple: A better chance at home ownership for middle income earners.

The above practices work best when implemented with integrated design. Integrated design ensures elements of the built environment perform more than one purpose. As much as possible, every feature is both supported by, and benefits from another. One example of this would be a parking structure with shade provided by solar panels which also catch rainwater, which is funneled into cisterns that support the structure, and so on. Further, it is a process that involves collaboration by all interested parties (owner, architect, contractors etc.) throughout the design/build process – from start to finish.

This all brings up a short list of questions:

- Could simpler homes, built with fewer materials actually perform better and cost less than the homes currently being built on a larger scale?
- Would it make sense to consider homes mostly heated, cooled, lighted and ventilated by natural means?
- Should the Town ask designers and builders to take full advantage of such “low-hanging fruit”?
- How much more cash flow would the occupants of the residential unit have to spend in the local economy if they were less beholden to continually rising energy costs?

Staff is not suggesting any code changes at this point. Instead, guidelines could be adopted that staff would use when guiding development applications.

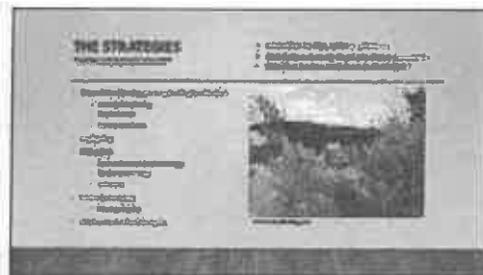
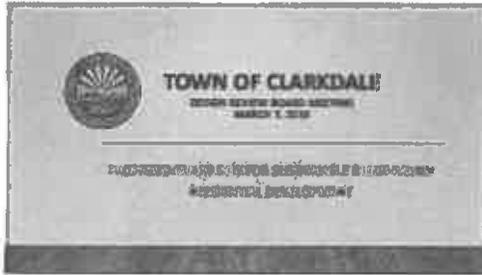
Further Discussion

Staff suggests this might be an appropriate discussion item for when the Board conducts their joint work session with Council. After receiving direction from Council, staff can compose draft guidelines for review by the Design Review Board.

Public Participation:

If direction is received by Council to proceed with the development of sustainable guidelines for multifamily housing, staff would suggest inviting some local contractors and property owners to meet with the Design Review Board to discuss the draft sustainable guidelines.

03/08/2018



05/08/2018

DAYLIGHTING *enhance interior lighting and reduce energy consumption*



WATER/SOL

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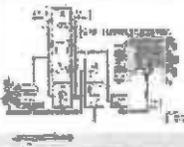
WATER/SOL

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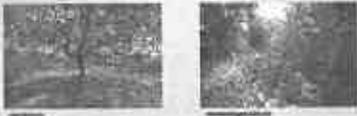


WATER/SOL

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LANDSCAPE *enhance outdoor environment and provide shade*



LOCAL CONTEXT *blend with surrounding environment*

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03/08/2018

LOCAL COMFORT

Bedroom Sleepers?
Bedroom Sleepers?

- 1. Bedroom Sleepers?
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SEASONAL OPERATION

1. Bedroom Sleepers?	Bedroom Sleepers?
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**MAKING THE CASE FOR SIMPLE
EARTH-FRIENDLY ARCHITECTURE**

Public Hearing
February 20, 2018

Public Hearing
February 20, 2018

1. Making the case for simple earth-friendly architecture



BOARD DISCUSSION

- Board Member Prud'homme-Bauer asked about cost and availability. Mr. Gray stated it depends on a number of variables, but he will do some additional research to find answers to these questions.
- Chair Jones suggested these concepts could be applied to single-family residential homes also.

Peter de Blanc addressed the Board. He stated we should be cautious about adopting guidelines that conflict with our current building code. Staff agreed we would need to eliminate any potential conflicts.

BOARD ACTION: The Board directed staff to draft sustainable development guidelines for multi-family projects.

7. FUTURE AGENDA ITEMS:

FOR APRIL

- Planning Manager Escobar stated there have been no applications submitted to be reviewed at the April meeting.
- Per Board Direction, staff will bring forward draft sustainable multi-family development guidelines for review.
- Staff will also be reporting on a process for completing an Art in Public Places project.
- Preparation for the joint worksession with Town Council will be scheduled in April.

FOR MAY

- Staff anticipates receiving the design and site plan review application for the park at Tract F of Crossroads at Mingus.
- May 8th is the joint worksession with Council

- 8. ADJOURNMENT:** Board Member Garvey motioned to adjourn the meeting. Board Member Prud'homme-Bauer seconded the motion. The motion passed unanimously. The meeting adjourned at 7:45 p.m.

APPROVED BY:

SUBMITTED BY:

Chairperson
Laura Jones

Senior Planner
Beth Escobar



Staff Report

Agenda Item: DISCUSSION/POSSIBLE ACTION regarding changing the regular meeting time of the Design Review Board.

Staff Contact: Beth Escobar

Meeting Date: April 4, 2018

Presented to: Design Review Board

Background:

The Design Review Board began this discussion at their March 7th meeting and directed staff to survey all Board members to identify preferred times for the meeting. These results will be reported at the April 4th meeting.

Please note, if the Board does decide to change the meeting time, the Town Clerk will need change the official Notice of Posting Locations & Meeting Schedule to reflect the change.

Requested Action: This is a discussion item only. Staff is looking for direction from the Board regarding the meeting time.



Staff Report

Agenda Item: Discussion/Possible action regarding sustainable development guidelines for multi-family development.

Staff Contact: Mike Gray

Meeting Date: April 4, 2018

Presented to: Design Review Board

Background:

On March 7, 2018, Community Development presented information on possible guidelines for sustainable multi-family residential development to the Design Review Board. Following the presentation, DRB directed staff to present guidelines in draft form at the April 4, 2018 meeting.

Staff has broken down the draft guidelines to integrate with the Town's adopted Sustainability Values.

These recommendations are guidelines only. Staff will present these guidelines to developers when development applications are received and the Board may use these when evaluating applications. Utilization of site, erosion control, natural features and stormwater management are already categories built into the approval criteria for site plan review per Section 11-3 of the Zoning Code.

The purpose of these guidelines is to reduce the total cost of ownership of multi-family residential housing and to minimize the impact of that housing on Clarkdale natural resources.

The terms "passive" and "active" are used when referring to water harvesting and solar energy:

Active Solar:

- Solar Photovoltaic (PV) panels convert solar energy to electrical energy. This is what most people think of when they hear "solar energy".
- Solar Thermal, another example of active solar, harvests energy through sun collectors to heat air and water.

Passive Solar:

- Passive Solar design entails collection and storage of thermal energy in high mass materials, like concrete and stone. This strategy is enhanced by use of properly oriented glass for heating, and shade for absorbing heat (cooling).



Staff Report

Active Water Harvesting:

- Collection of rain or runoff in storage containers, or cisterns. This is what most people think of when they hear “water harvesting”.

Passive Water Harvesting:

- This is simply forming the ground to channel, direct, slow, absorb and spread water down into the soil. This not only recharges groundwater, it also improves the health of soil and the surrounding environment.

Survey of policies and codes of other government entities

Staff is not aware of any specific sustainable multi-family development standards being adopted by any other government entity in the Verde Valley. The initial design for the proposed 190+ apartment complex currently going through the approval process with the City of Cottonwood does not incorporate any sustainable design elements.

The City of Sedona has design standards integrated into their Land Development Code that apply to all development including single-family and multi-family. Sedona’s code is written to encourage sustainable development practices but does not provide specific guidelines. For example, Section 5.7 of the Sedona Land Development Code, Site and Building Design includes the following language:

Promote building designs and construction practices that are sustainable and adaptable to multiple uses for extended building lifecycles;

Methods to achieve this goal are not provided. Clarkdale has similar language promoting and encouraging best practices in our General Plan, Zoning Code and 2013 Sustainable Community and Economic Development Plan.

As a pilot project, the Town of Camp Verde is currently working on a low-environmental impact, affordable housing project anticipated to incorporate some elements of sustainable design like those proposed in the draft guidelines presented with this report. The approach of Camp Verde’s project is smaller, site built homes, about 400-1000 square feet with consideration for permeable surfaces, water-harvesting earthworks and native vegetation. It is unknown if the Town of Camp Verde intends to adopt any specific guidelines as a result of this project.

By providing examples and suggestions, Clarkdale’s Sustainable Multi-family Development Guidelines may serve to introduce specific concepts to developers and contractors. They may choose to incorporate these concepts into their project early on in the design phase.



Staff Report

Agency Expert Review

Upon direction from Town Council to proceed with drafting guidelines, staff will request input from the Building Official, Public Works Director, Fire Marshall and Police Chief to identify any potential conflicts with current codes and practices.

Public Participation:

Staff would suggest inviting some local contractors and property owners to meet with the Design Review Board to review the proposed sustainable guidelines. In addition, a public meeting would be scheduled at a regular Design Review Meeting for discussion about the guidelines. Staff will publicize this meeting through the regular channels.

Next Steps

Once approved by the DRB for movement to Council, guidelines would need to be adopted by Town Council in a public hearing.

Recommendation: Staff is asking that the Design Review Board provide direction on the draft guidelines and recommended process for moving forward with this project.

Attachments:

1. Draft guidelines
2. SWOT analysis regarding suitability of various sustainable approaches
3. 2013 Adopted Sustainability Values

**Draft Guidelines for Sustainable Multi-Family Development
As of April 4, 2018
For review by the Design Review Board**

The following are draft guidelines. The references refer to the existing Sustainability Values.

1. Water Use

- a. Incorporate passive water harvesting through the use of berms, swales, drywells, rain gardens etc. (page 1-Water Management, page 3- Landscaping Standards)
 - i. *Relative cost is low since this depends more on good design and placement of materials than equipment or containers.*
- b. Consider active water harvesting and storage (page 1-Water Management, page 3-Landscaping Standards)
 - i. *The up-front, one-time equipment investment is fairly high depending on the size of the system. As more water is captured, less water is pumped out of the ground, which directly reduces impact to our aquifers. This strategy not only protects our ground water, but it also improves the surrounding environment and soil. In the long term this can also reduce monthly water bills.*
- c. Consider greywater for irrigating landscaping (page 1-Water Management)
 - i. *Relative cost is low, but success is dependent on use of appropriate cleaning products. In a tenant situation, this solution may not be ideal because there is no way to ensure use of non-harmful cleaning products.*
- d. Preserve existing plants where possible and plant symbiotic groupings of native species (page 1-Siting, page 2-Design Principles, page 3-Landscaping Standards)
 - i. *Cost is low since these plants are common to the area and have a higher rate of survival.*
- e. Incorporate EPA WaterSense best practices into domestic and landscaping usages if any.

2. Ecological design

- a. Minimize impact to land, open space, plants and wildlife by retaining existing vegetation and preserving existing wildlife corridors (page 1-Siting, page 2-Design Principles, page 3-Landscaping Standards)
 - i. *Cost is low—Simple design considerations and care during construction process.*
- b. Design for natural lighting during daylight hours (page 1-Siting, page 2-Green Building & Design Principles, page 3-Construction – 1. Energy Efficiency, 2. Indoor Environmental Quality, 6. Passive solar includes lighting) – LEED (Leadership in Energy and Environmental Design) has standards for Daylighting, and numerous studies tout the benefits to human health and productivity associated with natural lighting (see footnote for one example).
 - i. *Cost is low – Simple design considerations – window placement, light shelves, reflector decks etc. which, when placed correctly, both shade interior surfaces from direct sunlight while reflecting useful light deeper into the building.*

Draft Guidelines for Sustainable Multi-Family Development
As of April 4, 2018
For review by the Design Review Board

3. Construction

- a. Design in cooperation with natural features that are unique to each site (page 1-Siting, page 2-Green building)
 - i. *Cost is low – Build to take advantage of topography, slope aspect (direction facing), seasonal weather patterns, and other traits instead of compensating with more expensive solutions.*
- b. Consider passive solar design with thermal mass & insulation (page 1-Siting, page 2-Green building) –This strategy is enhanced by use of properly oriented glass for heating, and shade for absorbing heat (cooling).
 - i. *Although the cost of high mass construction is higher than ordinary construction, the total cost of ownership is low: Extremely high energy efficiency – even an opportunity for energy independence, and other long term benefits like durability, low maintenance, and comfort make this a strong recommendation.*
- c. Design for appropriate shading (page 2-Green Building & Design Principles, page 3- Construction)
 - i. *Cost is low – Simple design considerations like strategic placement of other structures and choosing deciduous vs evergreen plantings depending on location.*
- d. Design for natural ventilation in cooperation with building science phenomena (stack effect) – (page 1-Siting, page 2-Green Building & Design Principles, page 3-Construction)
 - i. *Cost low – Simple design considerations like opposing high & low windows and use of evapotranspiration for cooling.*
- e. As much as possible, design and build with low toxicity materials & finishes by minimizing the use of Volatile Organic Compounds (VOCs), formaldehydes etc. (page 2-Green Building & Design Principles, page 3-Construction)
 - i. *Cost low – alternative material selection.*

4. Permeable/Porous Paving

- a. Consider selection of porous paving as an alternative to concrete and asphalt in parking areas, sidewalks etc.
 - i. *Initial cost is estimated slightly higher than concrete or asphalt, however it reduces runoff, allows groundwater recharge, is not prone to cracking or water damage and at least one product has proven at least as durable as concrete over 15 years.*

(Staff Note: Although porous and permeable paving are not specifically mentioned on page 1-Infrastructure of the adopted Sustainability Values, both the Design Review Board and Planning Commission have expressed support of this concept following presentation on the topic.)

Footnotes:
National Renewable Energy Laboratory study (<https://www.nrel.gov/docs/fy02osti/30769.pdf>) provides more detailed information on many of these concepts

SWOT ANALYSIS OF SUSTAINABLE DEVELOPMENT GUIDELINES

Method	Strengths	Weaknesses	Opportunities	Threats
1 Passive Solar/Shading with Thermal Mass	<ul style="list-style-type: none"> •Low to no utility bills •Stores thermal energy •Essentially maintenance free •Long-term durability 	<ul style="list-style-type: none"> •Initial cost •Requires some participation/engagement of occupant •Requires appropriate design 	<ul style="list-style-type: none"> •FREE heat and cooling •Potential for high grade aesthetic •Heirloom building - can stand for centuries •May be able to use soil from site for construction 	<ul style="list-style-type: none"> •Must select designers and contractors familiar with methods
2 Natural Ventilation •Indoor Air Quality •Outdoor Living	<ul style="list-style-type: none"> •Connection with environment •Plein-air sleep •Improved health 	<ul style="list-style-type: none"> •Requires appropriate design 	<ul style="list-style-type: none"> •Studies show increased health, happiness and productivity 	<ul style="list-style-type: none"> •Must select designers and contractors familiar with methods
3 Daylighting	<ul style="list-style-type: none"> •Eliminates or minlmizes use of lighting energy during the day 	<ul style="list-style-type: none"> •Requires appropriate design 	<ul style="list-style-type: none"> •Free, high quality light •Studies show increased health, happiness and productivity 	<ul style="list-style-type: none"> •Must select designers and contractors familiar with methods
4 Passive Water Harvesting	<ul style="list-style-type: none"> •Slows down sheet flow •Reduces erosion •Retains top-soil •Gets water into soil quickly •Accelerates & enhances growth of shade trees, vegetation 	<ul style="list-style-type: none"> •Requires appropriate design 	<ul style="list-style-type: none"> •Accelerated growth of vegetation •Improved soil health •increased density of shade plants •Option to grow edibles •Buffer from drought •Minlmizes groundwater pumping •Preserves Verde River and habitat 	<ul style="list-style-type: none"> •Must select designers and contractors familiar with methods

SWOT ANALYSIS OF SUSTAINABLE DEVELOPMENT GUIDELINES

Method	Strengths	Weaknesses	Opportunities	Threats
5 Rainwater Catchment & Storage	<ul style="list-style-type: none"> •FREE, high quality water •Can be used for anything- even potable use •Minimizes erosion during large runoff events •Minimizes groundwater pumping •Used and released onsite, recharges groundwater 	<ul style="list-style-type: none"> •Initial cost of collection and storage systems •Requires appropriate design 	<ul style="list-style-type: none"> •Buffer from drought •Minimizes groundwater pumping •Preserves Verde River and habitat 	<ul style="list-style-type: none"> •Must select designers and contractors familiar with methods
6 Greywater	<ul style="list-style-type: none"> •Plants thrive on nutrients •Water used more than once •Accelerates & enhances growth of shade trees, vegetation •Improves soil health •Recharges groundwater 	<ul style="list-style-type: none"> •Greywater should not be stored •Difficult to control what tenants put down drains 	<ul style="list-style-type: none"> •Accelerated growth of vegetation •Improved soil health •Increased density of shade plants •Option to grow edibles •Buffer from drought •Minimizes groundwater 	<ul style="list-style-type: none"> •Occupants may use harmful soaps/detergents or fail to use diverter when appropriate, •Must select designers and contractors familiar with methods
7 Natural Landscaping Strategies	<ul style="list-style-type: none"> •Native species need little to no additional water •Planting in guilds creates a symbiotic environment •Lower cost since native plants are plentiful in the area 	<ul style="list-style-type: none"> •Requires appropriate design 	<ul style="list-style-type: none"> •Vegetation consistent with surrounding area •Preserves soil health •Maintenance free once established 	<ul style="list-style-type: none"> •Must select designers and contractors familiar with methods
For the reasons in orange, Greywater may not be a viable option for a tenant situation.				



TOWN OF CLARKDALE SUSTAINABILITY VALUES

As stewards of our resources, we serve as role models for others and keepers of the land for future generations. The people of the Town of Clarkdale are committed to creating and maintaining a healthy, vibrant and sustainable community.

This document provides guiding principles for development in the Town. Great value is placed on creative and innovative methods for meeting the principles of these guidelines.

Siting – Take advantage of the natural resources and consider the impact of building placement.

1. Orientation – for example, in the Southwest, a north/south orientation & overhangs providing shade are desirable
2. Topography – keep ridgelines intact & minimize grading
3. Wildlife – encourage preservation of the natural habitat
4. Plant life – preserve/transplant native, non-invasive species & remove invasive species.
5. Open spaces – clustering development in order to preserve open space is a valued practice
6. View protection – expansive landscape views are a valued benefit in the community; therefore preservation & enhancement is encouraged

Water Management – Recognize that water is an extremely limited resource; efficient and effective management of that resource is critical.

1. Use catchment basins
2. Consider rainwater harvesting where practical
3. Storm water management – (see National Green Building Standard, page 16, 403.5)
4. Washes – while dry much of the year, the washes are the primary drainage for stormwater runoff and there may be rules and impacts to be considered before making any changes. Development must comply with state and federal requirements.
5. Swimming pools – Community use pools are preferred over individual private pools.

Infrastructure – Design project infrastructure to have minimal impact on the environment.

1. Connecting to existing Systems – trails, bikeways, sidewalks, consider wildlife paths & crossings
2. Utilities – we encourage connecting to the town municipal water & wastewater system, encourage installation of power lines underground
3. Parking – we encourage screened and covered parking
4. Road Connection – we value interconnectivity between subdivisions and multiple points of ingress and egress for neighborhoods
5. Street Layout. (Design of street must comply with adopted standards.)



TOWN OF CLARKDALE SUSTAINABILITY VALUES

Green building – Incorporate current technologies to support sustainable design.

The design character of any area of The Town of Clarkdale should be enhanced and strengthened by new development. Building design should be consistent with the Town of Clarkdale's vision of maintaining small town character as expressed in its architecture and overall community design. Building design should consider the history, the distinctive qualities of the surrounding context, and incorporate those qualities into its design. Building design should be sensitive to the evolving context of the area over time.

1. Energy
2. Alternative methods of transportation including foot traffic
3. Driveways & parking
4. Air quality
5. Innovative practices

Design Principles – Plan projects to fit into existing infrastructure and have minimal impact.

1. Ensure adequate traffic circulation through coordinated street systems with relation to major thoroughfares, adjoining subdivisions, adjacent commercial properties and public facilities;
2. Promote development that incorporates multimodal transportation options;
3. Protect significant, as determined by the Town, natural areas and scenic assets;
4. Achieve individual property lots of reasonable utility and livability;
5. Secure adequate provisions for water supply, drainage, sanitary sewers, and other health/environmental requirements;
6. Encourage projects that incorporate efficient uses of renewable energy sources, including but not limited to, solar, geothermal and wind;
7. Ensure consideration for adequate sites for schools, recreation areas, and other public facilities;
8. Promote the conveyance of land by accurate legal description; and to provide the logical procedures for the achievement of this purpose;
9. Minimize detrimental impacts to the environment by encouraging site designs that protect and enhance the natural features and environmental quality of a site;
10. Encourage landscaping that limits water and energy use and preserves existing natural vegetation;
11. Encourage the preservation of existing wildlife habitat; and
12. Encourage the substitution of effluent for potable water when possible.



TOWN OF CLARKDALE SUSTAINABILITY VALUES

Construction: Incorporate the following best practices

1. Energy efficiency
2. Indoor environmental quality
3. Resource efficiency – quality of construction materials
4. Waste minimization – focuses on preventing the creation of waste through source reduction, re-purposing, recycling and donation.
5. Consider using vegetation removed during construction for mulching on site.
6. Consider a passive solar energy design
7. Encourage the use of energy and water efficient appliances and kitchen/bathroom fixtures.

Maintenance & Restoration – Minimize environmental impact

1. Design & construction practices are implemented that enhance the durability of materials and reduce in-service maintenance.
2. Upgrade all systems when possible to meet the highest possible energy efficient standards.

Landscape Standards – Develop a landscape plan that conserves resources by incorporating the following:

1. Use of site design that retains and directs rainwater to landscape areas.
2. Retention, to the greatest extent practical, of existing natural trees and shrubs on the site.
3. Transplanting of existing native vegetation that cannot be retained into new landscape area.
4. Use of an effective irrigation system that senses soil moisture.
5. Design of irrigation system that avoids overspray and overflow.
6. Include a target shut-off date for the irrigation system.



Staff Report

Agenda Item: DISCUSSION regarding Art in Public Places

Staff Contact: Mike Gray

Meeting Date: April 4, 2018

Presented to: Design Review Board

Background: One of four economic components of the 2013 Sustainable Community and Economic Development Plan is the following strategy to support the local art community called Creative Clarkdale:

CREATIVE CLARKDALE

BACKGROUND

Home to an array of artists from a variety of genres, Clarkdale boasts an active population of visual and performing artists. Annually in December, the Made In Clarkdale non-profit arts organization hosts a gala showcasing the juried works of artists living and/or working in Town. An active Arts in Public Places committee collaborates with the Town to feature exhibits of local arts with a rotating exhibit in our library. With this active group, the visibility of public art is increasing.

GOALS

A. Promote the arts and related businesses

Short-term Strategies – zero to 2 years

- 1. Expand the uses of public buildings as artistic spaces, venues or retreat locations.***
- 2. Establish a public art space featuring rotating local arts, crafts and artists.***
- 3. Create an artist-in-residency program with local partners.***
- 4. Collaborate with events promoters to feature the arts.***

Additionally, the **Central Business District Focus Area Plan**, adopted by Town Council on February 27, 2018, includes a strategy to launch an Art in Public Spaces project in the Central Business area.

Public Art is a mechanism for economic development and helps create a sense of place for community. With the rich history of Clarkdale and the abundance of local artists, a public art project in Town will provide a showcase for the Town and its artists.



Staff Report

A Public Art project encompassing the strategies listed above would need to be vetted by an official appointed body of the Town. Staff recommends identifying the Design Review Board as the body that will review and approve Art in Public Places projects. Since this will be an additional responsibility of the Board, such action will require an amendment to Town Code Section 17-4 and would need to be approved by Council.

Possible Process:

Staff recognizes the need for establishment of application and review guidelines as well as approval criteria.

Future Board discussion would need to clarify who is eligible to participate in this program.

Proposed areas for Art in Public Places:

Staff has identified the following areas as potential locations for Public Art.

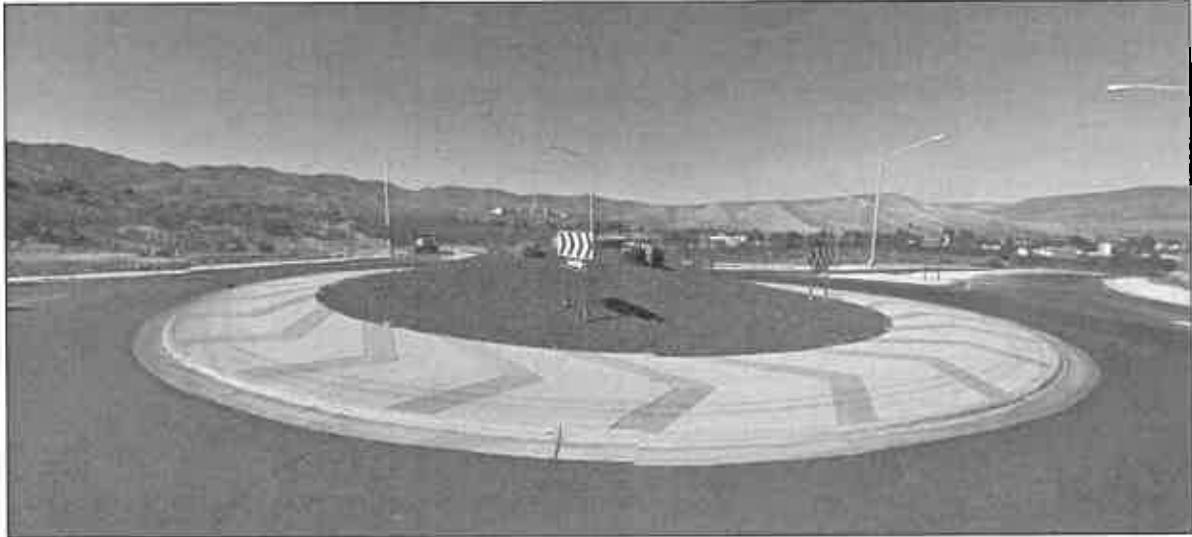
New intersection at Broadway and Main





Staff Report

89A corridor roundabouts



www.maps/google.com

Main Street



www.maps/google.com



Staff Report

Downtown Alleys





Staff Report

Council Endorsement:

Staff proposes this issue be discussed with Town Council during the May 8th Joint Worksession. If Council provides direction to proceed, the following components need consideration:

- Invitation to apply - Who will be invited? All Clarkdale artists? Who is considered an artist?
- How will the information regarding the process be disseminated? Perhaps this can be done in a meeting for invitees/applicants.
- Once criteria for judging the applications is adopted, an application will need to be developed.

Selecting Public Art can be challenging since artistic tastes and standards may vary. It will be important to have a specific selection criteria. Some suggestions to be considered are whether the art:

- Attracts visitors
- Is unique to Clarkdale?
- Conveys Clarkdale's history, culture and community?
- Celebrates the Verde River?
- Explores sustainable and/or repurposed materials

Requested Action: This is a discussion item only. Staff is asking for direction from the Board on whether they would like to accept the responsibility of reviewing and approving Art in Public Places Projects.



Staff Report

Agenda Item: DISCUSSION/POSSIBLE ACTION regarding preparation for the May 8th joint worksession with Town Council.

Staff Contact: Beth Escobar

Meeting Date: April 4, 2018

Presented to: Design Review Board

Background:

The Design Review Board has been invited to meet with Town Council in a joint worksession on Tuesday, May 8th at 6:00 p.m.

A separate Board agenda will be posted for this meeting and the Board Chair will call the meeting to order as part of the worksession.

Possible Items for Discussion:

The Board may consider discussing the following at this joint worksession:

- Sustainable Guidelines for Multi-family Development, and
- An Arts in Public Places Program, including possible review criteria and an award process.

The Board may discuss additional items to be placed on the agenda for this meeting.

Requested Action: This is a discussion item only.

